

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 0

Mile Post (ON)11: 22.086 mi

Bridge Name: F-17-HR

Inspection Date: 3/5/2013

Sufficiency Rating: 91.5 Not Eligible

NBI Reporting ID:	F-17-HR	Hist Signif 37:	5	UW Inspection Date 93B	
Rgn/Sectn 2E/2M:	68	Posting status 41:	A	SI Date 93C:	
Trans Region 2T	02	Service on/un 42A/B:	5 1	Bridge Cost 94:	\$ 0
County Code 3:	035	Main Mat/Desgn 43A/B:	6 5	Roadway Cost 95:	\$ 0
DOUGLAS		Appr Mat/Desgn 44A/B:	0 0	Total Cost 96:	\$ 0
Place Code 4:	00000	Main Spans Unit 45:	2	Year of Cost Estimate 97:	
non-city		Approach Spans 46:	0	Brdr Brdg Code/% 98A/B:	
Rte.(On/Under)5A:	1	Horiz Clr 47:	60.0 ft	Border Bridge Number 99:	
Signing Prefix 5B:	5	Max Span 48:	118.0 ft	Defense Highway 100:	0
Level of Service 5C:	1	Str Length 49:	232.7 ft	Parallel Structure 101:	N
Directional Suffix 5E:	0	Curb Wdth L/R 50A/B:	5.0 ft 0.0 ft	Direction of Traffic 102:	2
Feature Intersected 6:		Width Curb to Curb 51	60.0 ft	Temporary Structure 103	
SH 470 ML		Width Out to Out 52:	68.3 ft	Highway System 104:	0
Facility Carried 7:		Deck Area:	15,899. sq. ft	Fed Lands Hiway 105:	0
COLORADO BLVD		Min Clr Ovr Brdg 53:	99.99	Year Reconstructed 106	0000
Alias Str No.8A:		Min Undrclr Ref 54A:	H	Deck Type 107:	1
		Min Undrclr 54B:	17.4 ft	Wearing Surface 108A	6
Prll Str No. 8P		Min Lat Clmce Ref R 55A:	H	Membrane 108B:	2
		Min Lat Undrclr R 55B:	24.0 ft	Deck Protection 108C:	1
Location 9:		Min Lat Undrclr L 56:	4.0 ft	Truck ADT 109:	2 %
5.1 M E OF JCT US 85		Deck 58:	6	Trk Net 110:	0
Max Clr 10:	328.1 ft	Super 59:	6	Pier Protection 111:	
BaseHiway Net12:	0	Sub 60:	6	NBIS Length 112:	Y
IrsinvRout 13A	0000000000	Channel/Protection 61:	N	Scour Critical 113:	N
IrrsubRout No13B:	00	Culvert 62:	N	Scour Watch 113M:	
Latitude 16:	39d 33' 39"	Oprrng Rtg Method 63:	1 LF Load Fact	Future ADT 114:	15,000
Longitude 17:	104d 56' 31"	Operating Rating 64:	89.1	Year of Future ADT 115	2028
Range18A:	67 W	Inv Rtnng Method 65:	1	CDOT Str Type 120A:	CBGC
Township18B:	67	Inventory Rating 66:	53.0	CDOT Constr Type 120B	4.
Section18C:	1	Asph/Fill Thick 66T:	002 "in"	Inspection Indic 122A:	
Detour Length 19:	0.6 mi	Str. Evaluation 67:	6	Inspection Trip 122AA	
Toll Facility 20:	3	Deck Geometry 68:	5	Inspection Schedule ID:	ODD MAY E14
Custodian 21:	1	Undrclr Vert/Hor 69:	4	Maintenance Patrol 123:	17
Owner 22:	1	Posting 70:	5	Expansion Dev/Type124	0
Functional Class 26:	09	Waterway Adequacy 7	N	Brdg Rail Type/Mod 125A/B	R 1
Year Built 27:	1984	Approach Alignment 72:	8	Posting Trucks 129A/B/C	0 0 0
Lanes on 28A:	4	Type of Work 75A:		Str Rating Date 130:	12/31/1998
Lanes Under 28B:	4	Work Done By 75B:		Special Equip 133:	
ADT 29:	10,200	Length of Improvment 76:	0.0 ft	Vert Clr N/E 134A/B/C:	X 99.99 0
Year of ADT 30:	2008	Insp Team Indicator 90B:	WHITE TEAM	Vert Clr S/W 135A/B/C	X 99.99 0
Design Load 31:	6	Inspector Name 90C:	CHURCHESK	Vertical Clr Date:	5/5/1905
Apr Rdwy Width 32:	64.0 ft	Frequency 91:	24 months	Weight Limit Color: 139	0
Median 33:	0	FC Frequency 92A:		Str Billing Type:	U
Skew 34:	20.00 °	UW Frequency 92B:		Userkey 1 - System:	ONSY
Structure Flared 35:	0	SI Frequency 92C:		Userkey 7-Update Indic	
Sfty Rail 36a/b/c/d:	1 0 1 1	FC Inspection Date 93A:			
Rail ht36h:	30 "in"				

Inspector Name: CHURCHESK

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Element Inspection Report

Elem/En	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
26/4	Conc Deck/Coatd Bars	(SF)	15,899	0 %	0	100 %	15,899	0 %	0	0 %	0	0 %	0
105/4	R/Conc Box Girder	(LF)	1,617	92 %	1,492	8 %	125	0 %	0	0 %	0	0 %	0
210/4	R/Conc Pier Wall	(LF)	44	100 %	44	0 %	0	0 %	0	0 %	0	0 %	0
215/4	R/Conc Abutment	(LF)	145	100 %	145	0 %	0	0 %	0	0 %	0	0 %	0
301/4	Pourable Joint Seal	(LF)	145	100 %	145	0 %	0	0 %	0	0 %	0	0 %	0
325/4	Slope Prot/Berms	(EA)	2	0 %	0	100 %	2	0 %	0	0 %	0	0 %	0
326/4	Bridge Wingwalls	(EA)	4	100 %	4	0 %	0	0 %	0	0 %	0	0 %	0
331/4	Conc Bridge Railing	(LF)	233	100 %	233	0 %	0	0 %	0	0 %	0	0 %	0
333/4	Other Bridge Railing	(LF)	233	100 %	233	0 %	0	0 %	0	0 %	0	0 %	0
340/4	Superstr Cnc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
341/4	Substr Conc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
530/4	Approach Guardrail A	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
26/4	Conc Deck/Coatd Bars	2 Inches of asphalt (average). Moderate pattern cracks (open to ½ inch) in NBnd lanes, some have been sealed. Few small potholes (< 1 ft. Ø) and patches along cracks in NBnd lanes. Asphalt is breaking up along right rail. Numerous random cracks (open to ¼ inch) in #2 SBnd lane, those in #1 SBnd lane have been sealed. Moderate transverse cracks at both ends of bridge.
105/4	R/Conc Box Girder	Interior of box girders is not accessible. Light longitudinal and diagonal cracks extending out about 20 feet on bottom flanges near supports, some with efflorescence, stalactites, and rust stains. (See 2013 Photo)
210/4	R/Conc Pier Wall	Few scrapes on pier walls approx. 7 feet up from bottom.
215/4	R/Conc Abutment	Hairline horizontal cracks, with some spots of efflor., along the cold joints.
301/4	Pourable Joint Seal	Poured seal at deck joint above both abutments. Asphalt covered.
325/4	Slope Prot/Berms	Concrete slope paving on both abutment slopes. Minor horizontal and some diagonal cracks. Cracked and settled 3 inches at top right side of Abutment 1. Settled up to 3 inches and pulled away 1½ inches from #1 Lt. wingwall, with 2½ ft. deep void beneath concrete slope paving. Settled up to 6 inches and pulled away 2 inches from #3 Rt. wingwall, with about a 3½ ft. deep void below slope paving. Settled up to 3 inches at left side of Abutment 3.
326/4	Bridge Wingwalls	U-type abutment wings. Map cracking with mod. efflor. in #1 Lt. wingwall. Some efflorescence and moisture seeping from hairline horizontal cracks at seat level, and also from light vertical cracks, at forward wings (worse at Abutment 3 left with heavy efflorescence). Sub-approach wings have settled with concrete breaking up at #1 Left wing, and both at #3. (See Photos)

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Elem/Env	Description	Element Notes
331/4	Conc Bridge Railing	Concrete Type R bridge rail (Jersey barrier). Typical vertical and shrinkage cracks, some with efflorescence.
333/4	Other Bridge Railing	Concrete Type R bridge rail (with metal pedestrian fence attached on top) at left side. Look good.
340/4	Superstr Cnc Coating	On exterior face of exterior girders, overhangs, and bridge rail. Some blotted out graffiti on right edge of exterior girder at Abutment 3. Peeling off of rail both sides.
341/4	Substr Conc Coating	On abutments, wingwalls, and pier walls. Starting to peel at several locations.
530/4	Approach Guardrail A	Concrete rail at approaches has settled and/or pushed: Settled 4 inches and pushed 1¾ inches at #1 Left; Settled 3½ inches and pushed 1 inch at #1 Right; Settled 3¼ inches and pushed 2 inches at #3 Right; Settled 3½ inches and pushed ¾ inch at #3 Left. Approach rail at #1 left is missing one timber spacer block.

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
353.04	Br Dk Rpr	3/5/2013	<input type="checkbox"/>	2016	500

Patch small potholes in Northbound lanes.

360.03	App SI & S	3/5/2013	<input type="checkbox"/>	2016	1000
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Place flow-fill in voids (up to 3½ feet deep) beneath concrete slope paving along #1 Left and #3 Right wingwalls.

353.08	Br Dk Rpr	1/24/2001	-1	2016	1000
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Seal cracks in asphalt surface.

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Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
353.09	Br Dk Rpr	3/5/2013	—	2016	15000

Remove and replace asphalt surfacing on deck.

Bridge Notes

Box girders are not accessible.

Curb at #1 Lt. approach has been replaced.

A concrete ramp has been constructed at transition from approach sidewalk to sidewalk on bridge at #1 Left corner.

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Inspection Notes

Temperature: 38°
Time: 1:00
Weather: Clear

Scope:

☒ NBI: ☒ Element: ☐ Underwater: ☐ Fracture Critical: ☐ Other: Type: Regular NBI

Team Leader Inspection Check-off:

☐ FCM's ☐ Vertical Clearance
☐ Posting Signs ☐ Stream Bed Profile
☐ Essential Repair Verification

Inspection Team:

Inspection Date: 03/05/2013

Inspector: CHURCHESK

Inspector (Team Leader)